

Mead "Wonder Books" series, is a very well written account of one of the most fascinating natural communities of our planet, the kelp forest. The contents include such topics as "The Marine Food Chain," "Creatures of the Forest—the Fish," "Creatures of the Forest—the Invertebrates," and "A Valuable Sea Plant." The author skillfully describes kelp beds and the interaction among organisms within these "giant forests." The concluding chapter, "Kelp's Friend and Enemy: Man," provides the young reader with a brief account of man's efforts to conserve these forests.

Many black-and-white photographs—some, unfortunately, of rather poor quality—and sketches are included, and there is an index. The book is recommended for the middle-school reader.

James P. Barufaldi
University of Texas
Austin

SEE WHAT I CAUGHT, by Ann Thomas Pieciewicz. 1974. Prentice-Hall, Inc., Englewood Cliffs, N.J. 48 p. \$4.95 (hardback).

The purpose of this small, informative book is to help children understand how to catch, feed, and care for woodland insects, amphibians, and reptiles. Included in the coverage are fireflies, crickets, salamanders, tadpoles, frogs, treefrogs, toads, and turtles. Excellent instructions are given at the beginning of the book on how to make critter-carriers, insect-nets, and cages for each animal. The illustrations that accompany these instructions and the rest of the book are clever as well as visually descriptive.

The author has an excellent knowledge of the habits and behavior of the animals she describes and combines this with a writing style stimulating to young children. However, some of the vocabulary used in the book would be difficult for a young reader to tackle independently. In the frog chapter, more description is needed for the reader to distinguish between the four types of frog mentioned. Also, throughout the book there are subtle references that each of these animals possess human characteristics. This is particularly noticeable in the frog chapter, where the author states that the frogs croak to say they're happy. The chapters could have been better organized so as to present each animal group together rather than scattering insects, reptiles, and amphibians in a random manner.

Despite these minor corrections, the quality of the book is excellent. I was especially impressed with the author's recommendation to set the animals free after a period of observation.

Nancy Ann Guild
Bergen Elementary School
Evergreen, Colo.

The index has three parts: *subjects*, *titles*, and *authors*. Alphabetizing is letter-by-letter (not word-by-word); for example, "Educational" would precede "Education theory."

SUBJECTS

• Everything in Volume 36 is covered except filler items.

This is a *multiple* index; that is, an item may be indexed in two or more places, to ensure access. "See also" takes you to related matters.

Entries in the first part are keyed to sections of the *TITLE* index, as follows: A, articles; R, reports; L, letters to the editor; E, editorials; and D, Different Point of View. The number tells the issue (no.) and page in the journal. You may go directly to the page, of course; or you may consult the *TITLE* index to discover whether the item is one you are seeking.

The second part of this subject index groups books reviewed in this volume by title. Authors and editors of books (not the reviewers) are mentioned in parentheses preceding the issue-and-page reference. Initial articles (a, an, the) of book titles have been dropped; that is, a title begins with its first substantive word.

Academic freedom A 3:139

Academic status L 1:47

Adaptability A 4:229

Advanced Placement Examination A 5:282

Affective domain: conservation education R 8:500; environmental education A 2:107; humanistic approach A 7:430; levels of A 2:107; small group learning A 3:173; statistical findings about A 3:173

Africa A 1:28

Agnostic behavior R 8:504

Air temperature R 3:178

Algae A 6:344, R 9:558

Anatomy and physiology, instruction in R 1:41

Anatomical specimens A 1:31, R 8:501

Animals: live A 1:31; man's loss of kinship with A 1:31; wild A 4:212

Anti-intellectualism E 7:390

Aquaria, Marine A 6:344, R 1:40

Aspergillus niger A 8:474

Attitudes: conservation R 8:500; Indian life-style D 4:243; off-road vehicle users A 4:203; students' L 6:368. *See also* Affective domain.
Audiotutorial programs A 2:95
Audiovisuals A 1:28, 1:37

Bacillus cereus A 8:474

Behavior studies A 1:31, R 8:504

Betacyaninuria A 8:463

Big Brother's world A 6:331

Biochemistry: laboratory activity in R 5:308; misconceptions about R 5:308

Biological keys R 8:499

Biological molecules A 9:541

Biology, academic status of L 1:47, 1:48

Biomass A 8:468

Biometrics R 9:557

Bombyx mori R 9:557

Boycott R 1:43

BSCS biology A 9:543

Bureau of Land Management A 4:203

Calculator, programmable A 8:496

Carbohydrates, transport and storage R 5:309

Careers A 2:82

Change, agents of L 1:47; contribution of science to E 4:194; Cuban education A 5:267

Chromobacterium R 7:433

Chromosomes, staining of A 3:146

Classroom safari A 1:28

Climate and food production A 9:534

Community resources A 7:430

Conservation: L 6:367, R 8:500; careers in A 2:82; consequences of freeing non-native species L 2:116; off-road vehicles in the desert A 4:203, 5:294; whales R 1:43; wild animals A 4:212

Constitution, creationism and the A 3:139

Control of man D 3:180

Cooperation in education A 9:527

Cope's view of evolution A 9:545

Copying machine, use in test assembly A 2:102

Course descriptions: audiotutorial A 2:95; first-year college biology A 4:217; humanistic approach A 7:430; January term R 3:176; minicourses A 7:427; science-literature program A 4:225; social issues theme A 6:346; society-environment-science A 2:105; teacher preparation A 2:99

Cottage industry, health care as A 3:149

Creationist position A 3:139, L 1:48, 1:49, 4:245
 Cryptozoics A 6:360
 Crystals, characteristics of A 9:541
 Cuba A 5:267
Curricula: elementary science A 6:340; first-year college biology A 4:217; liberal arts A 9:527; straight jacket of A 6:331. *See also* Course descriptions.

Daphnia, culturing of R 4:239
 Data collection and analysis A 7:418
 Demonstration of algal bloom R 9:558.
See also Experiments.
 Desert, off-road vehicles in A 4:203, 5:294
 Development, mammalian A 7:412
 Diffusion, demonstration of R 4:240
 Diversity, loss due to off-road vehicles A 5:294
 Doctor of Arts degree: Command of subject A 2:92; qualities as a teacher A 2:92; status of A 2:92
Drosophila A 8:489; R 2:110

Earwax A 8:463
 Ecological barriers A 8:474
Ecology: fresh water surveys A 7:430; imbalances in A 1:28; river study R 6:363; teaching of E 7:390; videotape projects in R 3:176
 Ecosystems: effects of off-road vehicles on A 5:294; river study R 6:363; soil and water R 7:433
 Editor: appointment of new R 5:307; death of former assistant editor R 6:363; pleasure to have served E 5:258; policies of E 6:322
Education: as intrinsic process A 9:527; cursory thinking in L 1:48; doublethink in A 6:331; in Cuba A 5:267; in Indochina A 2:87; lockstep E 1:2. *See also* Learning theory and Teaching methods.
 Educational imperialism A 9:543
 Educational Testing Service A 5:282
 Elementary Science Study (ESS) A 6:340
 Endangered species A 4:212, R 5:308; and woman as object A 5:275; whales as R 1:43
 Energy, ethics of use E 2:66
 Environmental education A 2:105; Affective domain in A 2:107; mountain venture in A 5:279; women and A 5:275
 Environmental issues D 9:561
 Environmental problems: experiments about A 1:31; paradoxes in R 2:113; river study R 6:363
 Equipment, field A 8:468
 Ethics E 2:66; for conservation of wild animals A 4:212; in the control of man D 3:180
Evaluation: Advanced Placement Examinations in A 5:282; alternative to a final exam R 7:433; audiotutorial programs A 2:95; first-year college biology courses A 4:217; grades in A 6:331; individualized instruction A 3:156, R 1:41; inquiry role approach A 6:349; learning activity packets R 4:241; minicourses A 7:427; NSF

summer institutes A 4:236; outdoor biology R 7:435; Piagetian tasks in A 4:209; small-group learning A 3:173; tape-guided field trips A 1:37; teacher preparation A 2:99; 9:527
 Evolution, competition in A 8:474; laboratory activity about A 6:357; mammalian A 8:476; 9:545; Mendel, Darwin and L 5:310
 Examinations, Advanced Placement A 5:282
Experiments: crucial A 6:334; depth perception A 7:401; eye dominance A 7:401; finger mazes A 7:401; heart rate A 7:401; human error in A 7:401; hormonal regulation A 6:337; involving students A 1:31, 7:401; mammalian development A 7:412; muscular fatigue A 7:401; Myriapoda, Tardigrada and other Cryptozoics A 6:360; nervous system A 7:401; pea seedling A 1:31, 4:223; *Pilobus* A 4:221; plant growth A 6:337; small-group learning A 3:173; *Solidago* galls A 7:420

Fertilizer A 9:534
 Field equipment A 8:468
 Field studies: effects of sulfur dioxide A 7:418; Experimental A 1:31
 Field trips: tape-guided A 1:37; teacher liability on R 4:239
 Filter bridges A 8:474
 Filmmaking A 7:407
 Fish trap A 8:468
 Fluorides R 5:307
 Food production A 9:534
 Free-exercise clause (in legal proceedings) A 3:139
 Fungi: *Pilobus* A 4:221

Gadd, Sam R 6:363; L 7:437
 Galls A 7:420
 Experiments:
Genetics: chromatin material R 3:179; *Drosophila* mating A 8:489; effects on history R 2:110; experiments in A 1:31; 8:489; laboratory instruction in A 8:463
 Geographic distribution A 8:474
 Geologic sites: effects of off-road vehicles A 5:294; mountain ventures to study A 5:279
 Gerbils: behavior of R 8:504; water requirements of L 2:116; wild L 2:116
 Growth: galls A 7:420; plants A 6:337, 9:539
 Guard cell wall R 3:179

Hair, hazards of long L 2:116
 Health care: careers in A 2:82; changes in A 3:149; effects on history R 2:110; nonsense about D 8:508
 Health maintenance organizations A 3:149
 History: biology of R 2:110; of experimentation A 6:334; of health care practices R 2:110; of science-literature program A 4:221; sexism in L 4:245
 Homologies A 9:545
 Hormones, in regulating plant growth A 6:337
 Human genetics A 8:463

Humanistic approach to teaching A 7:430
 Huxley's views of evolution A 9:545
 Hypotheses: origin of life A 3:161; testing of A 8:461

Imagination in teaching R 8:502
 Individualized instruction A 3:156, R 1:41
 Indians (American), way of living D 4:243
 Indochina: A 1:21, L 6:371; view of U.S. science from A 2:87
 Inquiry A 6:349; 8:492
 Insects A 8:468; R 7:434
 Insight in problem solving A 8:461
 Institutes, NSF Summer A 4:236
 Instruction: *See* Teaching methods.
 Intercultural education R 7:435
 Internships in teacher preparation A 2:99
 Involvement, community R 6:363

January term R 3:176
 Job description R 8:506
 Job market A 4:229

Karoo reptiles A 8:476; 9:545
 Keys, biological R 8:499

Laboratory procedures: anatomical specimens R 9:501; biological molecules A 9:541; cultivation of seedlings A 1:13, 4:223; *Daphnia* R 4:239; demonstrations R 3:179, 4:241; *Drosophila* R 2:110; filter bridges A 8:474; genetic selection A 8:489; hazards of long hair L 2:116; hormonal regulation of plant growth A 6:337; investigations in osmosis and diffusion A 8:492; marine aquaria R 1:40; mating of *Xenopus laevis* R 2:112; measuring ambient air temperature R 3:178; microscope slides A 7:414; plant growth A 6:337, 9:539; silkworms R 9:557; simulation of competition A 8:474; staining A 3:146, 7:414; stereomicroscope R 9:558

Lacey Act L 6:368
 Learning activity packages R 4:241
 Learning theory, Piagetian tasks in A 4:209
 Legislation: abuse of wild animals A 4:212; health care A 3:149; Lacey Act L 6:368
 Liability of teacher on field trips R 4:239
 Lichens A 7:418
 Literature, examples of science in A 4:225
 Live animals, student use in Canada A 1:31
 Lockstep instruction A 6:331

Mammalian development A 7:412
 Mammal trap A 8:468
 Marine aquaria A 6:344, 1:40
Mariner 9 A 7:423
 Mars A 7:423
 Maze studies A 1:31, 7:401
 Measurements in the field A 8:468
 Medical care: *See* Health care
 Membership in NABT R 3:176
 Methanethiol excretion A 8:463

- Microscope slides A 7:414
 Minicourses A 7:427
 Model(s): algal bloom R 9:558; morphogenesis A 1:31; origin of life A 3:161; schools-in-the-countryside A 5:267
 Modules A 3:156, 5:292
 Molecular interactions in origin of life A 3:161
 Molecules, 3-D structure of A 9:541
 Morphogenesis A 1:13
 Mortality A 3:149
 Mountain ventures A 5:279
 Mutualism A 2:77
 Myriapoda A 6:360
- Nature studies A 1:31, R 5:308
 Non-native species, consequences of freeing L 2:116
 Nutrition: effect on history R 2:110; experiments in A 1:31
- Oceanography, careers in A 2:82
 Off-road vehicles A 4:203, 5:294
 Optional experiences A 7:427
 Origin of life A 3:161, 6:334
 Osazones A 9:541
 Osmosis R 3:179
 Osmosis and diffusion A 8:492
 Outdoor biology: equipment for A 8:468; humanistic approach A 7:430; intercultural education R 7:435; *Solidago* galls A 7:420. *See also* Field studies.
 Owen's view of evolution A 9:545
- Papers, presentation of A 5:305
 Pea seedlings A 1:13, 4:223
 Pets, exotic A 4:212
 Physiology, experiments in A 1:31
 Piagetian tasks A 4:209
 Plankton A 8:468
 Political education A 5:267
 Politics of health nonsense D 8:508
 Problem solving A 8:461
 Programmable calculator A 8:496
 Project BIOTECH A 5:292
 Proteinoids A 3:161
 Protocells A 3:161
 Purification of aquaria A 6:344
- Reason, role of art in D 1:45
 Religion, science or L 6:369
 Reproductive biology: Experiments in A 1:31; Mating of *Xenopus laevis* R 2:112
 Reptiles A 8:476, 9:545
 Reservoirs R 9:558
- Safety pin puzzle A 8:461
 San Francisco Bay, study of R 2:110
 Science: artistic creation in D 1:45; autonomy of A 2:87; basic beliefs about A 1:21; in Democratic Republic of Viet Nam A 1:21; dependence on nonrational processes D 1:45; disruptive force of E 4:194; history of A 1:21; integrating literature into L 6:367; neutrality of A 2:87; religion and L 6:369
 Science academies A 5:305
 Science-A Process Approach (S-APA) A 6:340
 Science Curriculum Improvement Study (SCIS) A 6:340
 Science education abroad A 9:543
- Science fairs A 1:31
 Science ideology A 1:21, 2:87, 3:139
 Science teaching, freedom in A 3:139. *See also* Teaching methods.
 Scientists: how they work D 2:115; need for A 4:229; public policy and D 9:562
 Seedlings A 1:13, R 9:537
 Senses, experiments on A 1:31, 7:401
 Sexism, in history L 4:245
 Silkworms R 9:557
 Simulations: biological processes A 9:554; Martian conditions A 7:423
 Small-group learning A 3:173
 Social aims of education A 5:267
 Social implications E 7:390
 Social issues, as a theme for a course A 6:346
 Social parasitism A 2:77
 Socialist point of view A 1:21
 Socialized medicine A 3:149
 Society, women in A 5:275
 Soil studies A 8:468
Solidago galls A 7:420
 Specialists, role of in health care A 3:149
 Spider-book key L 4:245
 Staining methods A 3:146, 7:414
 Stereochemistry in origin of life A 3:161
 Stereomicroscope R 9:558
 Students: investigations for A 8:492; involvement in science academy A 5:305; purposefulness of E 3:130; response to individualized instruction A 3:156, 7:427; response to social issues theme A 6:346; responsibilities of A 2:105; self-direction of E 3:130; summertime mountain venture for A 5:279; voyage for R 2:110
 Sulfur dioxide A 7:418
 Super-8 filming A 7:407
 Symbiosis A 2:77
- Take-home labs R 9:557
 Tape-guided field trips A 1:37
 Tardigrada A 6:360
 Teachers: Community college A 2:99; internships for A 2:99; job description of R 8:506; preparation of A 2:99, 4:236, 6:349, 9:527
 Teaching as an extrinsic process A 9:527
 Teaching assistants: preparation of A 1:37; Undergraduate A 2:95
 Teaching methods: affective domain A 2:107, 3:173; anatomy and physiology R 1:41; audiotutorial programs A 2:95; Doublethink in A 6:331; environmental science A 2:105, 2:107; imagination R 7:433, 8:502; implications of history in A 6:334; in Cuba A 5:267; individualized instruction A 3:156, R 1:41, 4:241; inquiry role approach A 6:349; integration of theory and practice A 5:267; lecture-laboratory format A 6:331; minicourses A 7:427; modules A 3:156, 5:292; objectives in the laboratory A 9:539; optional exercises A 7:427; Piagetian tasks A 4:209; small-group learning A 3:173; social issues theme A 6:346; team teaching A 2:105; test assembly A 2:102; use of hypothesis testing A 8:461; use of live animals A 1:31; use of programmable calculators A 8:496; use of simulations A 9:554; use of undergraduate assistants A 2:95; value clarification R 4:241; video-tape projects R 3:176
 Team teaching A 2:105
 Technician training A 5:292
 Technology and food production A 9:534
 Temperature studies in man R 6:364
 Ten Commandments of energy use E 2:66
 Textbooks, creationism in A 3:139
 Theory into practice E 7:390
 Timekeeping R 3:179
 Tumors, plant A 1:13
- Values: clarification of R 4:241; conservation and R 8:500; promotion of A 9:527. *See also* Affective domain.
 Video-tape projects R 3:176
 View of science from Indochina A 2:87
- War, as a commercial venture A 1:21
 Water studies A 8:468, 9:531
 Weapons A 1:21
 Whales, slaughter of R 1:43
 Wildlife A 1:28, L 6:367
 Woman as object A 5:275
- Xenopus laevis*, induced mating in R 2:112
 Zoos A 4:212

Book Reviews

- Behavior:** Adrenaline (Hollingsworth) 4:249; Behavioral physiology of animals and man, vol. 1 (von Holst) 6:377; Biology (Suthers and Gallant) 1:58; Cities in tomorrow's world (Michelson et al.) 2:119; Gazelle-boy (Armen) 6:376; Introduction to animal behavior (Klopfer) 9:564; Invertebrate learning, vol. 1 and 2 (ed. Corning, Dyal, and Willows) 6:381; Man and aggression (ed. Montagu) 1:51; Messages and voices (Cosgrove) 8:520; Social behavior of the bees (Michener) 9:564
Botany: Atlas of plant life (Edlin) 3:182; Biochemistry of green plants (Krogmann) 6:373; Botany (Neushul) 9:564; Botany (Weier, Stocking, and Barbour) 9:565; Botany: a functional approach (Muller) 7:440; Flora of the Pacific Northwest (Hitchcock and Cronquist) 2:118; How plants travel (Rahn) 4:255; How to know the western trees (Baerg) 2:118; Introductory plant biology manual (Stocks, Hess, and Weber) 1:51; Morphology of plants (Bold) 3:182; Mycology guidebook (ed. Stevens) 9:565; Physiology of plants and their cells (Goss) 3:183; Plant fun (Soucie) 9:565; Plant physiology (Bidwell) 9:566; Plants in the laboratory (Koch) 2:118; Seedlings and soil (Prime and Klein) 6:381; Topics in botany (Evert and Eichhorn) 9:565; Wild flowers of Alabama and adjoining states (Dean,

- Mason, and Thomas) 6:373; Wonders of the cactus world (Lavine) 7:440; Wonders of a kelp forest (Brown) 9:572; Woody plants of the north central plains (Stephens) 7:441.
- Cell and molecular biology:** Atlas of molecular structures in biology, vol. 1 (ed. Phillips and Richards) 8:512; Biochemical basis of neuropharmacology (Cooper, Bloom, and Roth) 8:512; Catalysis and enzyme action (Bender and Brubacher) 6:373; Cell differentiation (Ashworth) 4:253; Cellular development (Garrod) 4:253; Chemical basis of life (*Scientific American*) 3:182; Chemical biology (Bronk) 3:182; Discovering the basis of life: an introduction to molecular biology (Roller) 6:378; Fine structure of cells and tissues (Porter and Bonneville) 3:183; Functions of biological membranes (Davies) 4:253; Life's basis (Parker and Mertens) 1:57; Organic chemistry of life (ed. Melvin Calvin and William A. Pryor) 7:440; Origins of life on the earth (Miller and Orgel) 6:375; Proteins, vol. 1 (ed. Funatsu et al.) 1:57.
- Ecology and environmental biology:** Birds of Big Bend National Park and vicinity (Wauer) 3:192; Birds that fly in the night (Bosinger and Faucher) 3:191; Challenge of ecology (Kucera) 2:120; Chemical villains (Berry, Osgood, and St. John) 6:375; Clean air-sparkling water (Shuttlesworth) 1:64; Coastal ecology (Barbour et al.) 7:441; Collecting world sea shells (Major) 9:572; Conservation (Mossman) 9:568; Death of Lake Erie (Young) 4:247; Dictionary of the environmental sciences (Durrenberger) 2:119; Earth, the great recycle (Russell) 7:441; Easy experiments with water pollution (Sootin) 9:568; Ecological biology 1, organisms and their environments (ed. Ewer and Hall) 1:53; Ecology and evolution of animal behaviour (Wallace) 6:380; Ecology (Emlen) 3:183; Ecology, evolution, and population biology (*Scientific American*) 9:569; Ecology of populations (Boughay) 7:441; Ecology (Mangum and Mertens) 8:512; Environmental problems (ed. Mason and Folkerts) 1:54; Environmental sciences (Hibbs) 9:567; Environments in profile (Kaill and Frey) 3:183; Field biology and ecology (Benton and Werner) 8:513; Freshwater ecology (Macan) 9:567; Introduction to ecology (Colinvaux) 1:52; Introduction to environmental sciences (Moran, Morgan, and Wiersma) 3:184; Introduction to marine environments (Zotoli) 1:52; Island biology (Carlquist) 9:566; Killers of the seas (Ricciuti) 6:380; Koalas live here (Eberle) 2:128; Laboratory and field investigations in general ecology (Rolan) 1:53; Land above the clouds (Morrison) 9:568; Marine aquarium keeping (Spotte) 7:451; Next to the north wind (Lütgen) 3:192; Only a little planet (ed. Brower) 1:52; Our dirty water (Elliot) 4:255; Our precarious habitat (Benarde) 5:313; Our wildlife legacy (Allen) 9:567; Pilgrim at Tinker Creek (Dillard) 8:516; Pollution lab (Berger) 9:567; Principles of environmental science (Watt) 1:53; Seashore life of Puget Sound, the strait of Georgia, and the San Juan Archipelago (Kozloff) 8:513; See what I caught (Pieciewicz) 9:573; Sourcebook for environmental education (Vivian) 1:52; Stalking the wild taboo (Hardin) 1:55; Superspill (Becker and Coburn) 9:567; Tender carnivore and the sacred game (Shepard) 2:119; Then there were none (Leen) 6:375; Under siege (Wagner, Bailey, and Campbell) 2:120; Waldo Tyler's world (Tyler) 4:247; Walking in the wild (Kelsey) 3:184; Wild enemies (McCoy) 8:512; World food resources (Borgstrom) 1:54; Your health and safety in a changing environment (Lawrence et al.) 3:186.
- Education and professional concerns:** ABC's of the open classroom (Gingell) 1:52; Elementary school science (George et al.) 7:442; Help in the school (Beach) 3:184; How to do a science project (Webster) 8:520; How to prepare for College Board Achievement Tests: biology (Bleifeld) 3:184; Joys and sorrows of parenthood (Committee on Public Education of the Group for the Advancement of Psychiatry) 6:377; Non-traditional careers for women (Splaver) 6:374; Organic classroom (Fegley et al.) 3:184; Outdoor education equipment (Bachert and Snooks) 6:374; Perspectives on environment (ed. Manners and Mikesell) 8:513; Places for learning, places for joy (Sizer) 1:52; Secondary school curriculum improvement (Trump and Miller) 7:442; Structure and process in secondary schools (McDill and Rigsby) 9:569; Students! do not push your teacher down the stairs on Friday (Jones) 6:375; Teachers are people (Church) 3:185; Techniques and materials in biology (Behringer) 3:188; Thinking machine (Brierly) 3:188.
- Evolution:** Darwin and Darwinism (ed. Vanderpool) 9:569; Evolution (Avers) 7:442; Evolution of the nervous system (Sarnat and Netsky) 8:514; To find a dinosaur (Shuttlesworth) 5:320; Vertebrate history (Stahl) 6:376.
- General biology:** Biological science: an ecological approach (BSCS) 8:514; Biological science: an inquiry into life (BSCS) 3:188; Biological science: molecules to man (BSCS) 3:189; Biological systems (Gerking) 9:570; Biology (Ebert et al.) 1:59; Biology (Wasserman) 2:125; Biology (Moment and Habermann) 4:253; Biology (McNally) 8:515; Elements of biological science (Keeton) 5:317; Elements of biology (Levy) 2:124; Integrated biology (Hill, Bellamy, and Jones) 5:316; Integrated principles of zoology (Hickman, Hickman, and Hickman) 8:519; Laboratory techniques for high school (Edwards and Cimmino) 8:515; Laboratory investigations in the principles of biology (Mertens and Bennett) 5:314; Life (Luria) 2:122; Life science (Smallwood, Sousley, and Harmer) 2:125.
- Genetics:** Biochemical genetics (Woods) 4:253; Biology of the gene (Levine) 1:54; Chromosomes (White) 6:374; Genetic fix (Etzioni) 4:247; Genetical structure of populations (Mather) 7:443; Genetics (Goodenough and Levine) 7:443; Heredity and human affairs (Nagle) 7:443; Laboratory exercises in genetics (Levine and Schwartz) 1:54; Laboratory exercises in genetics (Stine) 6:378; Outline of human genetics (Penrose) 4:248; Principles of human genetics (Stern) 1:54; Readings in genetics and evolution: a selection of Oxford biology readers 4:248; What color are you? (Walton) 4:255.
- Health:** Blueprint for medical care (Rutstein) 7:446; Food (*Scientific American*) 2:119; Health instruction (Fodor and Dalis) 7:446; Human poisoning from native and cultivated plants (Hardin and Arena) 6:373; Living nutrition (Stare and McWilliams) 4:249; Readings on ethical and social issues in biomedicine (ed. Wertz) 3:187; Story of medicine in American (Marks and Beatty) 7:444; Use and misuse of drugs subject to abuse (Weinswig) 1:51.
- History and philosophy:** Evolution of a scientist (Land) 1:55; From cell to philosopher (Nicklanovich) 1:58; How did life get there? (Cohen) 1:62; Man's future birthright (Muller) 7:447; Philosophy of biological science (Hull) 9:570; Philosophy of biology (Ruse) 3:187; Science: people, concepts, processes (Jones) 9:571; Science, technology, and freedom (Tritt and Solomons) 7:446; Sculpture of life (Borek) 6:374; Strategy of life (Grobstein) 8:516.
- Microbiology:** Basic microbiology (Volk and Wheeler) 5:315; Fundamental principles of bacteriology (Salle) 4:250; Introduction to bacteria and their ecology (Doetsch and Cook) 5:315; Introduction to microbiology (Krueger et al.) 4:249; Introductory microbiology (Levy, Campbell, and Blackburn) 7:450; Laboratory instructions in microbiology (Anderson) 8:516; Laboratory microbiology (Bradshaw) 1:56; Manual of basic virological techniques (Rovozzo and Burke) 6:377; Microbiology and human disease (Wistreich and Lechtman) 5:316; Microbiology of the atmosphere (Gregory) 1:56; Programmed introduction to microbiology (Brooks) 1:56; Tiny living things (Cauvin) 4:255.
- Physiology:** Biology of sex (Avers) 8:516; Conception, contraception (Loebl) 7:444; Conscious brain (Rose)

TRIARCH



Recognized as a symbol of

Highest Quality

in prepared microscope slides

Also supplying: Live cultures, photomicrographic transparencies, Bausch & Lomb elementary (ESM) and secondary (STZ-SSM-Academic) microscopes and stereomicroscopes, and magnifiers.

Free Catalogs Available

TRIARCH INCORPORATED

Box 98
RIPON, WISCONSIN 54971

FELLOWSHIP

DOCTOR OF ARTS IN BIOLOGY

Applications for predoctoral fellowships are being accepted now from qualified students dedicated to college-level teaching and interested in studying for the D.A. degree in Biology. Applicants must hold an M.S. degree in Biology or its equivalent prior to the fall, 1975 term. Fellowships carry a stipend of \$2,800/academic yr. plus tuition waiver. For details of this new program and application materials write to:

BIOLOGY CHAIRMAN

BOX 8007

**IDAHO STATE UNIVERSITY
POCATELLO, IDAHO 83209**

4:247; Drugs and man (Navarra) 1:63; Dynamic anatomy and physiology (Langley, Telford, and Christensen) 8:518; Everything a teenager wants to know about sex . . . and should (Preston with Margolin) 6:382; Experimental plant physiology (ed. San Pietro) 7:440; Facts about sex for today's youth (Gordon) 2:123; Handbook of vitamins and hormones (Kutsky) 3:186; Health and light (Ott) 7:444; Hormones (Riedman) 4:252; Human anatomy and physiology (Shepro, Belamarich, and Levy) 8:518; Human body (Elgin) 2:128; Human reproduction (Swanson) 8:517; Human sexual behavior and sex education (Johnson and Belzer) 7:444; Immunology (Schmeck) 6:378; Mechanisms of body functions (Easton) 8:518; Nature of human sexuality (Winchester) 6:376; Physiological clock (Bünning) 4:252; Sex and birth control (Lieberman and Peck) 2:123; Sex and human life (Pengelly) 9:570; World within the brain (Weiss) 8:517

Related fields: Biostatistical analysis (Zar) 5:316; Elementary analysis of variance for the behavioral sciences (Meddis) 2:118; Explorers of the

atom (Gallant) 8:520; Focus on environmental geology (ed. Tank) 2:120; Giant planets (Nourse) 8:519; Introduction to chemistry for biology students (Sackheim) 6:379; Physics for life sciences (Cromer) 6:379; Solids, liquids, and gases (Bendick) 9:571; Storms (Weiss) 3:192

Zoology: Amphibians (Frazer) 2:127; Amphibians as pets (Zappler and Zappler) 1:63; Animals of Europe (Burton) 5:318; Atlas of insects (Tweedie) 8:519; Atlas of primate gross anatomy (Swindler and Wood) 4:254; Autumn of the eagle (Laycock) 5:313; Cat book (ed. Shaw) 6:382; Changeable world of the oyster (Cook) 7:450; Coccidia (ed. Hammond and Long) 6:381; Comparative anatomy of the vertebrates (Kent) 3:191; Crayfish (Huxley) 9:572; Developmental biology (Sussman) 1:51; Dictionary of sharks (Pope) 4:254; Embryology and phylogeny in Annelida and Arthropoda (Anderson) 5:318; Fishes of the world: a key to families and a checklist (Lindberg) 6:380; General zoology (Villeg, Walker, and Barnes) 1:61; Handbook to the common intertidal invertebrates of the Gulf of California (Brusca) 2:126; Histology and comparative organolo-

gy (Banks) 6:378; Histology of the vertebrates (Andrew and Hickman) 9:571; If you were an ant (Brenner) 5:320; Insects and disease (Snow) 7:450; Laboratory techniques in zoology (Mahoney) 6:378; Let's look at reptiles (Huntingdon) 1:63; Life of the marsupials (Tyndale-Biscoe) 3:190; Naturalist's guide to fresh-water fish (Hoedeman) 9:571; Northern fishes (Eddy and Underhill) 9:572; Penguin (Thompson) 7:451; Perspectives in zoology (Boyden) 4:254; Pictorial anatomy of the dogfish (Gilbert) 1:60; Pictorial anatomy of the *Necturus* (Gilbert) 1:60; Quail in the family (Plummer) 9:567; Rand McNally atlas of world wildlife (ed. Bramwell) 1:60; Science of entomology (Romoser) 2:126; Spiders of the United States (Headstrom) 1:62; Textbook of immunology (Barrett) 8:518; Third eye (Eakin) 7:451; Turtle is born (White) 3:190; Vertebrate structures and functions (*Scientific American*) 8:516; Wasps (Spradbery) 5:318; Wild horse running (Savitt) 4:247; Wonders of the eagle world (Lavine) 8:512; Wonders of the pelican world (Cook and Schreiber) 9:571; Zoos are news (Bracegirdle) 1:62

TITLES

• The sections, in order, are articles (A), reports (R), "Different Point of View" (D), letters to the editor (L), editorials (E), "Auditioning Audiovisuals," and book reviews.

Each number tells the issue (no.) and page of the journal. The numbers are consecutive.

"A," "An," and "The" are dropped from titles; that is, a title begins with its first substantive word.

A—Articles

- 1:13 Pea seedling as a model of normal and abnormal morphogenesis, by Armen Kurkdjian, Pierre Manigault, and Robert Beardsley
- 1:21 Science ideology: a view from Indochina, by Val Woodward (Part 1)
- 1:28 Classroom safari, by Dorothy M. Andrews
- 1:31 Canada's experience with student use of living animals, by H. C. Rowsell
- 1:37 Tape the teacher: easier field trips for large classes, by Lynne Carter, Ruth Von Blum, and Watson M. Laetsch
- 2:77 Symbiosis: rich, exciting, neglected topic, by Jane Thomas Rowland
- 2:82 Career in biology without a Ph.D., by Elizabeth J. Mallon
- 2:87 Science ideology: a view from Indochina, by Val Woodward (Part 2)
- 2:92 Teacher qualities and command of subjects in relation to the D.A. degree in biology, by Grace E. Jacobs
- 2:95 Variations on an auditorial theme, by Helen G. Koritz and Michael L. Callery
- 2:99 Functioning program for the preparation of community-college biology teachers, by Dale C. Wallace
- 2:102 Test-assembly method saves time and money, by Daniel J. Dyman and Jerry J. Nisbet
- 2:105 Report on "society-environment-science," by Thomas Fort and Benjamin Poscover
- 2:107 Affective domain in environmental education, by David R. Stronck
- 3:139 Constitution and creationism, by Frederic S. Le Clercq
- 3:146 New dye for rapid staining of onion chromosomes, by Haven C. Sweet
- 3:149 Changing picture of medical care, by Peter J. Levin
- 3:156 Individualized course in college biology, by Sister Jean Sweat
- 3:161 Proteinoid theory of the origin of life and competing ideas, by Sidney W. Fox
- 3:173 Experiment in small-group learning, by Robert J. Starr and Carolyn D. Schuerman
- 4:203 Off-road vehicles and the fragile desert, by Robert C. Stebbins (Part I)
- 4:209 Piagetian tasks clarified: the use of metal cylinders, by Anton E. Lawson, Anthony J. D. Blake, and Floyd H. Nordland
- 4:212 Federal measures against the abuse of wild animals, by Nathaniel P. Reed
- 4:217 Survey of first-year college biology courses, by Edward J. Kormondy, William Kastrinos, and Gertrude G. Sanders
- 4:221 *Pilobolus*: the shotgun fungus, by Charles R. Coble and Charles E. Bland
- 4:225 Toward a science-literature program, by Dolores Silva and Albert Schatz
- 4:229 Scientists: who needs them? by Allan Tucker
- 4:233 Effects of ethylene in cigarette smoke on the development of pea seedlings, by Ching-yeh Hu
- 4:236 NSF-trained teachers perform better, 10-year summer institute follow-up shows, by Steven E. Dyche
- 5:267 Science, education, and culture in revolutionary Cuba, by Garland E. Allen
- 5:275 Women, society, and the environment, by Stuart A. Nicholson and Maureen Fries
- 5:279 Kansas students enjoy summertime "mountain ventures," by Kenneth M. Highfill
- 5:282 Advanced Placement exam in biology, by William Kastrinos and Frank C. Erk
- 5:292 Project BIOTECH: use of modules in technician training, by Richard B. Glazer
- 5:294 Off-road vehicles and the fragile desert, by Robert C. Stebbins (Part 2)
- 5:305 Pennsylvania Junior Academy of Science marks its 40th year, by Richard J. Medve
- 6:331 Doublethink in biological education, by Donald D. Cox
- 6:334 Human traits vs. crucial experiments, by Anton E. Lawson
- 6:337 Hormonal regulation of growth in plants, by Peter B. Kaufman and Sarvjit L. Soni
- 6:340 Comparison of biologic content in three elementary-school science curriculum projects: ESS, S-APA, SCIS, by Ronald D. Simpson
- 6:344 Algae-outside purification system for marine aquaria, by Michael M. Kane
- 6:346 Social issues serve as a unifying theme in a biology course, by Melba James, Edward Schmidt, and Thomas Conley
- 6:349 Successful inquiry methodology, by L. A. Seymour, L. F. Padberg, R. M. Bingman, and P. G. Koutnik
- 6:357 Biochemical lab activity supports evolution theory, by Daniel J. Dyman
- 6:360 Myriapoda, Tardigrada, and other Cryptozoids in introductory biology, by Ralph D. Stoaks
- 7:401 Biology students as experimental subjects, by F. Barbara Orlans
- 7:407 Making a super 8-mm ecology film, by Clair E. Cessna
- 7:412 Observing the events of mammalian development with mice, by Margaret H. Peaslee and Frank A. Einhellig
- 7:414 Preparation and care of microscope slides, by Carl W. Hagquist
- 7:418 Effect of sulfur dioxide on lichens: a field activity, by Philip M. Mathis
- 7:420 Solidago galls in outdoor biology, by William E. Rhodes III
- 7:423 Mars: an update for biologists, by Ronald Saltinski
- 7:427 Minicourses in biology: a non-major "turn-on," by Donald P. Streubel, John C. Duran, and Ivo Lindauer
- 7:430 Choices in science education: a humanistic approach, by Edward J. Kronin
- 8:461 Safety pins used in hypothesis formation and testing, by Julia Riggs
- 8:463 Human genetic traits in laboratory instruction, by Diane Nicholson and Thomas R. Mertens
- 8:468 Methods for providing and using field equipment, by H. Dean Jernigan and Jerry P. Murray
- 8:474 Filter bridges illustrate an evolutionary principle, by Robert E. Collins and Richard W. Olsen
- 8:476 Origin of the idea of the mammal-like reptile, by Richard P. Aulie (Part 1)
- 8:489 Selective preference in *Drosophila* mating, by Mary Forster
- 8:492 Investigative laboratory on diffusion and osmosis, by Mary Ann Sestili
- 8:494 Factors affecting the growth of two green algae, by D. L. Lynch and M. G. Fenwick
- 8:496 Programmable calculators in biology classes, by Roy Vail
- 9:527 Liberal arts and the future of teacher preparation, by Jack L. Carter
- 9:531 Biology class goes to the stream, by John W. Rushin
- 9:534 Impact of climate on world food production, by Wayne L. Decker
- 9:539 Effects of light on plant growth, by Frank A. Einhellig
- 9:541 3-D structure of molecules of biological significance, by Alice S. Bennett and Karl Schwenk
- 9:543 Adaptations of BSCS biology throughout the world, by William V. Mayer
- 9:545 Origin of the idea of the mammal-like reptile, by Richard P. Aulie (Part 2)
- 9:554 Simulating biological processes, by Douglas P. Reagan

R—Reports

- 1:40 Gallon-jar marine aquaria, by John W. Miller and Jane E. Mazur
- 1:41 Individualized instruction in college anatomy-physiology, by Marion E. Cornelius
- 1:43 U.S. boycott of Japanese goods urged against slaughter of whales, by Tom Garrett, Lewis Regenstein, and Christine Stevens
- 2:110 San Francisco Bay studied, by Robert Rutherford
- 2:110 *Drosophila* medium, by Roy Vail

- 2:110 Biology of history, by Werner G. Heim
- 2:112 Induced mating of *Xenopus laevis*, by Ora Ben-Gal (Glassman)
- 2:113 Environmental paradoxes, by Joseph M. Moran, and Michael D. Morgan
- 3:176 Membership or subscription?, by Jerry P. Lightner
- 3:176 Video-tape projects in human ecology, by Stephen E. Sallee
- 3:178 Sensitivity of the Gilson respirometer to changes in ambient air temperature, by Peter T. Nielsen
- 3:179 Superscript system of timekeeping, by Sam Gadd
- 3:179 Four demonstration ideas, by Ralph Postiglione
- 4:239 Continuous culture of *Daphnia*, by John Cruzan
- 4:239 Field trips and teacher liability, by Evan A. Sweetser
- 4:240 Demonstration of diffusion, by Gary K. Wanke
- 4:241 Learning activity packages don't work for everyone, by Jerry R. Aschermann
- 4:241 Value clarification and biology, by Charles R. Barman
- 5:307 Joan Creager to edit ABT, by Jerry P. Lightner
- 5:307 Fluorides report misinterpreted, by Jaroslav J. Vostal
- 5:308 Misconceptions in biochemistry, by Gary K. Wanke
- 5:308 Nuts to nature, by Jo Anne Mueller
- 5:309 Carbohydrates: transport and storage, by Paul G. Jantzen
- 6:363 Former assistant editor Sam Gadd dies, by editorial staff
- 6:363 River study leads to community involvement, by John Berry
- 6:364 Temperature studies in man, by Dennis L. Stockdale
- 7:433 "Mrs. Tittlemouse" examined, by Anthony J. Mullins
- 7:433 Isolation of *chromobacterium* from soil and water sample, by P. Gould, L. Lynch, and L. Hime
- 7:434 Insect musicians, by Sister M. Dolores Ahles
- 7:435 Education beyond classroom walls, by Dan Van Gorp and Jim Stamper
- 8:499 Designing an experimental "accident," by Lester Picker
- 8:499 Understanding biological keys, by Keith Koyama
- 8:500 Variables related to conservation, by Virgil B. Cauley, Jr., and David L. Groves
- 8:501 Anatomical preparations from preserved animal discards, by Harry L. Fierstine, Myron A. Amerine, and Kathleen L. Bek
- 8:502 Imagination in biology, by Louis Mihalyi
- 8:503 Demonstration aids for particulate genetics, by Benjamin H. Banta
- 8:504 Agonistic behavior in the male Mongolian gerbil, by S. K. Majumdar, J. H. Schwartz, and J. S. Santaspirit
- 8:506 Job description: biology teacher?, by Daniel W. Ball

- 9:557 Biometrics of seed germination: a home lab, by Ralph Postiglione
- 9:557 Rearing silkworms in the classroom, by James P. Barufaldi
- 9:557 Developing skill in the use of the stereomicroscope, by Martin B. Rosenman
- 9:558 Model for demonstrating algal blooms in artificial reservoirs, by Bernard A. Marcus
- 9:560 Does a little poetry spoil the scientific recipe?, by George R. Johnson

L-Letters

- 1:47 Academic status of biology, by David A. Griggs, by Robert E. Yager, by Patrick A. Kennedy, by Michael Owens, by Martin E. Senzon, by Prevo L. Whitaker, and by Joan G. Creager
- 1:48 Creationists reply to Cory article, by John N. Moore and by Duane T. Gish
- 2:116 Hazard of long hair, by Edward L. Frazier
- 2:116 Gerbils in the wild; and their water requirement, by F. Barbara Orlans
- 2:117 Comment, by James E. Murphy
- 4:245 Biology articles preferred, by Ronald E. Charlton
- 4:245 Spider-book key mended, by Julien Yoseloff
- 4:245 Sexism in history pictures, by Deborah Jamison
- 4:245 Creationism: a masquerade, by William V. Mayer
- 5:310 Mendel, Darwin, and evolution: some further considerations, by Randall R. Hedtke
- 5:311 Comment, by Gene Kritsky
- 6:367 Spare wildlife? by Dennis Holley
- 6:367 Comment, by Jo Anne Mueller
- 6:367 Integrating literature and science, by Frank L. Ryan
- 6:368 Comment, by Dolores Silva
- 6:368 Student attitudes, by Maurice Bleifeld
- 6:368 Lacey Act, by Harold F. DeLisle
- 6:369 Comment, by Nathaniel P. Reed
- 6:369 Religion or science: which is it? by Jeffrey J. W. Baker
- 6:370 Comment, by Nicholas J. T. Lo-Cascio
- 6:370 Comment, by Paul R. Gaston-guay
- 6:371 Uninviting view? by John Guthrie
- 6:372 Comment, by Val Woodward
- 7:437 Sam Gadd: friend and colleague, by Jack L. Carter

E-Editorials

- 1:2 Help for a wounded giant, by Jack L. Carter
- 2:66 Ethics of energy, by Jack L. Carter
- 3:130 Providing spirit for the seeker, by Jack L. Carter
- 4:194 Science → disruption → change, by Jack L. Carter
- 5:258 It's been a pleasure, by Jack L. Carter

The Physiological Clock

Circadian Rhythms and Biological Chronometry

By
Erwin Bünning
Universität Tübingen, Germany

Heidelberg Science Library, Volume 1
3rd revised edition
1973. xiii, 258p. 134 illus. paper/\$8.80
ISBN 0-387-90067-5

From a review of the second edition—
"Professor Bünning's book deals with what we know about the nature of the clock and how organisms use it. His examples are drawn from plants, man and other animals. His method is to present the problems and then the experiments that bear on their solution, and in many ways the book is a model for what a biological monograph should be. An enormous amount of experimental data is presented within a short space, much of it in text figures, and clearly a lot of thought has gone into the arrangement of the work and the elimination of specialist jargon in order to interest all biologists."

Nature

From a review of the third edition—
"The biology teacher and beginning college—biology student, with only an introductory knowledge, as well as researchers in the field, will find this book valuable, not only as a source of current knowledge but as a guide to the literature concerning biologic rhythms. The references at the end of each chapter list extensive reviews and other literature, directing the reader to the more special aspects of the subject."

The American Biology Teacher

"I ordered this edition without having seen it, on the basis of the excellence of previous editions. I am not disappointed; it is a very fine review, and it is needed now. . . ."

Comment by
Dr. Richard H. Swade,
Biology Department, California State
University, Northridge, Calif.

Please send me _____ copies of
The Physiological Clock (ISBN 90067-5).
Enclosed is my check for \$_____. (Add
New York sales tax where applicable).

Name (please print) _____

Address _____

City _____

State _____

Zip _____

Return to:



Springer-Verlag New York Inc.
175 Fifth Avenue
New York, N.Y. 10010

- 6:322 It's your journal, by Joan G. Creager
 7:390 Theory into practice, by Thomas J. Cleaver
 8:454 Legislative watchdog: overdue, by Barbara K. Hopper
 9:522 If it's worth doing, by Candace Bradford

Different Point of View

- 1:45 Art in reason, by Peter H. Klopfer
 2:115 Notes of a biology-watcher, by Lewis Thomas
 3:180 Ethics in the control of man, by Nicholas J. T. LoCascio and Sister Jean Dominici DeMaria
 4:243 Living the Indian way, by Grace Halsell
 8:508 Politics of health nonsense, by Stephen J. Barrett
 9:562 Rational discussion of environmental issues, by Richard A. Carpenter

Auditioning Audiovisuals

- Biological control of snails (Motion Picture Film Center, Cornell University) 5:312
 Hunters in the reef (McGraw-Hill Films) 5:312
 The poisoned sea (Moonlight Productions) 5:312

Book Reviews

- Authors and editors of the books (not the reviewers) are mentioned in parentheses preceding the issue-and-page reference.
- ABC's of the open classroom (Gingell) 1:52
- Adrenaline: the key to your behavior (Hollingsworth) 4:249
- Amphibians (Frazer) 2:127
- Amphibians as pets (Zappler and Zappler) 1:63
- Animals of Europe: the ecology of the wildlife (Burton) 5:318
- Atlas of insects (Tweedie) 8:519
- Atlas of molecular structures in biology: vol. 1 ribonuclease-S (ed. Phillips and Richards) 8:512
- Atlas of plant life (Edlin) 3:182
- Atlas of primate gross anatomy (Swinidler and Wood) 4:254
- Autumn of the eagle (Laycock) 5:313
- Basic microbiology (Volk and Wheeler) 5:315
- Behavioural physiology of animals and man, vol. 1 (von Holst) 6:377
- Biochemical basis of neuropharmacology (Cooper, Bloom, and Roth) 8:512
- Biochemical genetics (Woods) 4:253
- Biochemistry of green plants (Krogmann) 6:373
- Biological science: an ecological approach (BSCS) 8:514
- Biological science: an inquiry into life (BSCS) 3:188
- Biological science: molecules to man (BSCS) 3:189
- Biological systems (Gerking) 9:570
- Biology (Ebert et al.) 1:59
- Biology (Wasserman) 2:125

- Biology: a full spectrum (Moment and Habermann) 4:253
- Biology: an uncommon introduction (McNally) 8:515
- Biology of sex (Avers) 8:516
- Biology of the gene (Levine) 1:54
- Biology: the behavioral view (Suthers and Gallant) 1:58
- Biostatistical analysis (Zar) 5:316
- Birds of Big Bend National Park and vicinity (Wauer) 3:192
- Birds that fly in the night (Bosinger and Faucher) 3:191
- Blueprint for medical care (Rutstein) 7:446
- Botany (Neushul) 9:564
- Botany (Weier, Stocking, and Barbour) 9:565
- Botany: a functional approach (Muller) 7:440
- Catalysis and enzyme action (Bender and Brubacher) 6:373
- Cat book (ed. Shaw) 6:382
- Cell differentiation (Ashworth) 4:253
- Cellular development (Garrod) 4:253
- Challenge of ecology (Kucera) 2:120
- Changeable world of the oyster (Cook) 7:450
- Chemical basis of life (Scientific American) 3:182
- Chemical biology (Bronk) 3:182
- Chemical villains: a biology of pollution (Berry, Osgood, and St. John) 6:375
- Chromosomes (White) 6:374
- Cities in tomorrow's world (Michelsohn et al.) 2:119
- Clean air-sparkling water (Shuttlesworth) 1:64
- Coastal ecology: Bodega Head (Barbour et al.) 7:441
- Coccidia (ed. Hammond and Long) 6:381
- Collecting world sea shells (Major) 9:572
- Comparative anatomy of the vertebrates (Kent) 3:191
- Conception, contraception: a new look (Loebl) 7:444
- Conscious brain (Rose) 4:247
- Conservation (Mossman) 9:568
- Crayfish (Huxley) 9:572
- Darwin and Darwinism (ed. Vanderpool) 9:569
- Death of Lake Erie (Young) 4:247
- Developmental biology: its cellular and molecular foundations (Sussman) 1:51
- Dictionary of sharks (Pope) 4:254
- Dictionary of the environmental sciences (Durrenberger) 2:119
- Discovering the basis of life: an introduction to molecular biology (Roller) 6:378
- Drugs and man (Navarra) 1:63
- Dynamic anatomy and physiology (Langley, Telford, and Christensen) 8:518
- Earth, the great recycler (Russell) 7:441
- Easy experiments with water pollution (Sootin) 9:568
- Ecological biology 1: organisms and their environments (ed. Ewer and Hall) 1:53
- Ecology: an evolutionary approach

- (Emlen) 3:183
- Ecology and evolution of animal behavior (Wallace) 6:380
- Ecology, evolution, and population biology (Scientific American) 9:569
- Ecology of populations (Boughey) 7:441
- Ecology: the environmental crisis (Mangum and Mertens) 8:512
- Elementary analysis of variance for the behavioral sciences (Meddis) 2:118
- Elementary school science: why and how (George et al.) 7:442
- Elements of biological science (Keeton) 5:317
- Elements of biology (Levy) 2:124
- Embryology and phylogeny in Annelida and Arthropoda (Anderson) 5:318
- Environmental problems (ed. Mason and Folkerts) 1:54
- Environmental sciences (Hibbs) 9:567
- Environments in profile: an aquatic perspective (Kaill and Frey) 3:183
- Everything a teenager wants to know about sex . . . and should (Preston with Margolin) 6:382
- Evolution (Avers) 7:442
- Evolution of a scientist (Land) 1:55
- Evolution of the nervous system (Sarnat and Netsky) 8:514
- Experimental plant physiology (ed. San Pietro) 7:440
- Explorers of the atom (Gallant) 8:520
- Facts about sex for today's youth (Gordon) 2:123
- Field biology and ecology (Benton and Werner) 8:513
- Fine structure of cells and tissues (Porter and Bonneville) 3:183
- Fishes of the world: a key to families and a checklist (Lindberg) 6:380
- Flora of the Pacific Northwest (Hitchcock and Cronquist) 2:118
- Focus on environmental geology (ed. Tank) 2:120
- Food (Scientific American) 2:119
- Freshwater ecology (Macan) 9:567
- From cell to philosopher (Nicklanovich) 1:58
- Functions of biological membranes (Davies) 4:253
- Fundamental principles of bacteriology (Salle) 4:250
- Gazelle-boy (Armen) 6:376
- General zoology (Villev, Walker, and Barnes) 1:61
- Genetic fix (Etzioni) 4:247
- Genetical structure of populations (Mather) 7:443
- Genetics (Goodenough and Levine) 7:443
- Giant planets (Nourse) 8:519
- Handbook of vitamins and hormones (Kutsky) 3:186
- Handbook to the common intertidal invertebrates of the Gulf of California (Brusca) 2:126
- Health and light: the effects of natural and artificial light on man and other living things (Ott) 7:444
- Health instruction: theory and application (Fodor and Dalis) 7:446
- Help in the school: establishment of a paraprofessional program (Beach) 3:184

- Heredity and human affairs (Nagle) 7:443
- Histology and comparative organology: a text-atlas (Banks) 6:378
- Histology of the vertebrates (Andrew and Hickman) 9:571
- Hormones: how they work (Riedman) 4:252
- How did life get there? (Cohen) 1:62
- How plants travel (Rahn) 4:255
- How to do a science project (Webster) 8:520
- How to know the western trees (Baerg) 2:118
- How to prepare for College Board Achievement Tests: biology (Bleifeld) 3:184
- Human anatomy and physiology: a cellular approach (Shepro, Belamarich, and Levy) 8:518
- Human body: the muscles (Elgin) 2:128
- Human poisoning from native and cultivated plants (Hardin and Arena) 6:373
- Human reproduction: biology and social change (Swanson) 8:517
- Human sexual behavior and sex education (Johnson and Belzer) 7:444
- If you were an ant (Brenner) 5:320
- Immunology (Schmeck) 6:378
- Insects and disease (Snow) 7:450
- Integrated biology (Hill, Bellamy, and Jones) 5:316
- Integrated principles of zoology (Hickman, Hickman, and Hickman) 8:519
- Introduction to animal behavior (Klopper) 9:564
- Introduction to bacteria and their ecology (Doetsch and Cook) 5:315
- Introduction to chemistry for biology students (Sackheim) 6:379
- Introduction to ecology (Colinvaux) 1:52
- Introduction to environmental sciences (Moran, Morgan, and Wiersma) 3:184
- Introduction to marine environments (Zottoli) 1:52
- Introduction to microbiology (Krueger et al.) 4:249
- Introductory microbiology (Levy, Campbell, and Blackburn) 7:450
- Introductory plant biology manual (Stocks, Hess, and Weber) 1:51
- Invertebrate learning: vol. 1, *Protozoans through annelids*, and vol. 2, *Arthropods and Gastropod mollusks*, (ed. Corning, Dyal, and Willows) 6:381
- Island biology (Carlquist) 9:566
- Joys and sorrows of parenthood (Committee on Public Education of the Group for the Advancement of Psychiatry) 6:377
- Killers of the seas (Ricciuti) 6:380
- Koalas live here (Eberle) 2:128
- Laboratory and field investigations in general ecology (Rolan) 1:53
- Laboratory exercises in genetics (Levine and Schwartz) 1:54
- Laboratory exercises in genetics (Stine) 6:378
- Laboratory instructions in microbiology (Anderson) 8:516
- Laboratory techniques for high school (Edwards and Cimmino) 8:515
- Laboratory investigations in the principles of biology (Mertens and Bennett) 5:314
- Laboratory microbiology (Bradshaw) 1:56
- Laboratory techniques in zoology (Mahoney) 6:378
- Land above the clouds: wildlife of the Andes (Morrison) 9:568
- Let's look at reptiles (Huntingdon) 1:63
- Life (Luria) 2:122
- Life's basis: biomolecules (Parker and Mertens) 1:57
- Life science (Smallwood, Sousley, and Harmer) 2:125
- Life of the marsupials (Tyndale-Biscoe) 3:190
- Living nutrition (Stare and McWilliams) 4:249
- Man and aggression (ed. Montagu) 1:51
- Man's future birthright: essays on science and humanity (Muller) 7:447
- Manual of basic virological techniques (Rovozzo and Burke) 6:377
- Marine aquarium keeping: the science, animals, and art (Spotte) 7:451
- Mechanisms of body functions (Easton) 8:518
- Messages and voices (Cosgrove) 8:520
- Microbiology and human disease (Wistreich and Lechtman) 5:316
- Microbiology of the atmosphere (Gregory) 1:56
- Morphology of plants (Bold) 3:182
- Mycology guidebook (ed. Stevens) 9:565
- Naturalist's guide to fresh-water fish (Hoedman) 9:571
- Nature of human sexuality (Winchester) 6:376
- Next to the north wind (Lütgen) 3:192
- Non-traditional careers for women (Splaver) 6:374
- Northern fishes (Eddy and Underhill) 9:572
- Only a little planet (ed. Brower) 1:52
- Organic chemistry of life (ed. Calvin and Pryor) 7:440
- Organic classroom (Fegley et al.) 3:184
- Origins of life on the earth (Miller and Orgel) 6:375
- Our dirty water (Elliott) 4:255
- Our precarious habitat (Benarde) 5:313
- Our wildlife legacy (Allen) 9:567
- Outdoor education equipment (Bachert and Snooks) 6:374
- Outline of human genetics (Penrose) 4:248
- Penguin: its life cycle (Thompson) 7:451
- Perspectives in zoology (Boyden) 4:254
- Perspectives on environment (ed. Manners and Mikesell) 8:513
- Philosophy of biological science (Hull) 9:570
- Philosophy of biology (Ruse) 3:187
- Physics for the life sciences (Cromer) 6:379
- Physiological clock (Bünning) 4:252
- Physiology of plants and their cells (Goss) 3:183
- Pictorial anatomy of the dogfish (Gilbert) 1:60
- Pictorial anatomy of the *Necturus* (Gilbert) 1:60
- Pilgrim at tinker creek (Dillard) 8:516
- Places for learning, places for joy (Sizer) 1:52
- Plant fun (Soucie) 9:565
- Plant physiology (Bidwell) 9:566
- Plants in the laboratory (Koch) 2:118
- Pollution lab (Berger) 9:567
- Principles of environmental science (Watt) 1:53
- Principles of human genetics (Stern) 1:54
- Programmed introduction to microbiology (Brooks) 1:56
- Proteins, vol. 1 (ed. Funatsu et al.) 1:57
- Quail in the family (Plummer) 9:567
- Rand McNally atlas of world wildlife (ed. Bramwell) 1:60
- Readings in genetics and evolution: a selection of Oxford biology readers 4:248
- Readings on ethical and social issues in biomedicine (ed. Wertz) 3:187
- Science of entomology (Romoser) 2:126
- Science: people, concepts, processes (Jones) 9:571
- Science, technology, and freedom (Truitt and Solomons) 7:446
- Sculpture of life (Borek) 6:374
- Seashore life of Puget Sound, the strait of Georgia, and the San Juan Archipelago (Kozloff) 8:513
- Secondary school curriculum improvement: challenges, humanism, accountability (Trump and Miller) 7:442
- See what I caught (Pieciewicz) 9:573
- Seedlings and soil: botany for young experimenters (Prime and Klein) 6:381
- Sex and birth control (Lieberman and Peck) 2:123
- Sex and human life (Pengelley) 9:570
- Social behavior of the bees (Michener) 9:564
- Solids, liquids, and gases (Bendick) 9:571
- Sourcebook for environmental education (Vivian) 1:52
- Spiders of the United States (Headstrom) 1:62
- Stalking the wild taboo (Hardin) 1:55
- Storms: from the inside out (Weiss) 3:192
- Story of medicine in America (Marks and Beatty) 7:444
- Strategy of life (Grobstein) 8:516
- Structure and process in secondary schools (McDill and Rigsby) 9:569
- Students! do not push your teacher down the stairs on Friday (Jones) 6:375
- Superspill (Becker and Coburn) 9:567
- Teachers are people (Church) 3:185
- Techniques and materials in biology (Behringer) 3:188
- Tender carnivore and the sacred game (Shepard) 2:119
- Textbook of immunology (Barrett) 8:518
- Then there were none: America's vanishing wildlife (Leen) 6:375
- Thinking machine (Brierly) 3:188

Third eye (Eakin) 7:451
 Tiny living things (Cauvin) 4:255
 To find a dinosaur (Shuttlesworth) 5:320
 Topics in botany (Evert and Eichhorn) 9:565
 Turtle is born (White) 3:190
 Under siege (Wagner, Bailey, and Campbell) 2:120
 Use and misuse of drugs subject to abuse (Weinswig) 1:51
 Waldo Tyler's world (Tyler) 4:247
 Vertebrate history: problems in evolution (Stahl) 6:376
 Vertebrate structures and functions (*Scientific American*) 8:516
 Walking in the wild (Kelsey) 3:184
 Wasps (Spradbery) 5:318
 What color are you? (Walton) 4:255
 Wild enemies (McCoy) 8:512
 Wild flowers of Alabama and adjoining states (Dean, Mason, and Thomas) 6:373
 Wild horse running (Savitt) 4:247
 Wonders of the cactus world (Lavine) 7:440
 Wonders of the eagle world (Lavine) 8:512
 Wonders of the kelp forest (Brown) 9:572
 Wonders of the pelican world (Cook and Schreiber) 9:571
 Woody plants of the north central plains (Stephens) 7:441
 World food resources (Borgstrom) 1:54
 World within the brain (Weiss) 8:517
 Your health and safety in a changing environment (Lawrence et al.) 3:186
 Zoos are news (Bracegirdle) 1:62

AUTHORS

• The letter **A, R, D, L,** or **E** refers you to the appropriate section of the **TITLE** index. **B** (book review) refers you directly to the page of the journal. (You may, of course, go directly to the journal from any number.)

Abraham, Norman B 9:568
 Adkins, Dean A. B 1:54, 3:182, 6:378
 Ahles, Sister M. Dolores R 7:434
 Amerine, Myron A. R 8:501
 Allen, Garland E. A 5:267, B 7:447
 Andersen, Hans O. B 1:63
 Andersen, Nancy A. B 3:190
 Anderson, Ronald D. B 3:188
 Andrews, Dorothy M. A 1:28
 Andrews, Ted F. B 3:183
 Angwin, Timothy J. B 7:444
 Aschermann, Jerry R. R 4:241
 Aulie, Richard P. A 8:476, 9:545, B 9:570
 Avila, Vernon Lee B 4:249, 8:512
 Bailey, Michelle H. B 9:565
 Baker, Jeffrey J. W. L 6:369, B 1:55
 Baker, M. Michelle B 6:374, 8:513
 Ball, Daniel W. R 8:506
 Banta, Benjamin H. R 8:503
 Barman, Charles R. R 4:241
 Barnes, William G. B 4:250, 8:518
 Barnhart, Stephen J. B 1:51
 Barrett, Stephen J. D 8:508
 Barufaldi, James P. R 9:557, B 9:572

Bass, Carl J. B 1:52
 Beardsley, Robert A 1:13
 Behringer, Marjorie B 6:378
 Beidleman, Richard G. B 6:380
 Bek, Kathleen L. R 8:501
 Ben-Gal (Glassman), Ora R 2:112
 Bennett, Alice S. A 9:541
 Bennett, W. G. B 2:119
 Berry, John R 6:363
 Bindel, Henry J., Jr. B 2:119, 9:567
 Bingman, R. M. A 6:349
 Blake, Anthony J. D. A 4:209
 Bland, Charles E. A 4:221
 Bleifeld, Maurice L 6:368
 Boylan, Laurence C. B 1:52, 6:375
 Bradford, Candace E 9:522, B 6:376
 Brelsford, Karen B 1:63, 6:378, 8:514
 Brown, F. Martin B 2:126, 7:450
 Burton, Daniel F. B 6:373
 Bush, Kenneth H. B 1:56
 Callery, Michael L. A 2:95
 Capen, Ronald L. B 4:253
 Carpenter, Richard A. D 9:562
 Carter, Jack L. A 9:527, L 7:437, E 1:2, 2:66, 3:130, 4:194, 5:258
 Carter, Laura B 6:382
 Carter, Lynne A 1:37
 Cauley, Virgil B., Jr. R 8:500
 Cessna, Clair E. R 4:407
 Chambers, John E. B 8:512
 Charles, Brother H. B 9:565
 Charlton, Ronald E. L 4:245
 Cleaver, Thomas J. E 7:390, B 2:122, 7:442
 Coble, Charles R. A 4:221
 Cole, Thomas A. B 3:182, 8:512
 Collins, Robert E. A 8:474
 Conley, Thomas A 6:346
 Cooper, Jean E. B 3:184, 7:443
 Cornelius, Marion E. R 1:41
 Cox, Donald D. A 6:331
 Creager, Joan G. L 1:48, E 6:322
 Criley, Bruce B. B 7:444
 Cruzan, John R 4:239
 Daniel, Paul M. B 1:61, 8:519
 Davey, Eleanor B 4:255, 8:520
 Davies, Darrell B 7:446
 Davis, Adrian C. B 4:254, 7:450, 7:451
 Davis, Bill D. B 7:441
 Decker, Wayne L. A 9:534
 DeLisle, Donald G. B 2:118, 9:565
 DeLisle, Harold F. L 6:368
 DeMar, Robert B 3:191
 DeMaria, Sister Jean Dominici D 3:180
 Dodge, Richard A. B 5:316
 Douglass, Claudia B 4:248
 Duran, John C. A 7:427
 Durst, Harold B 3:188
 Dwyer, Sister Paulinus B 4:249
 Dyche, Steven E. A 4:236
 Dyman, Daniel J. A 2:102, 6:357
 Edwards, Ruth B 4:252
 Einhellig, Frank A. A 7:412, 9:539
 Enderson, James H. B 5:313
 Erdahl, Emma G. B 9:566
 Erk, Frank C. A 5:282
 Evans, Thomas P. B 3:189, 7:446
 Fenwick, M. G. A 8:494
 Fierstine, Harry L. R 8:501
 Finkenbinder, Leo R. B 1:53, 7:441
 Ford, James M. B 7:443
 Forster, Mary A 8:489
 Fort, Thomas A 2:105
 Fortman, Jon R. B 1:58, 7:451
 Fox, Sidney W. A 3:161

Frankenberger, Sister Louise B 9:567
 Frazier, Edward L. L 2:116
 Fries, Maureen A 5:275
 Gadd, Sam R 3:179, B 1:60, 3:187, 5:318, 6:380
 Gantert, Robert L. B 4:247
 Garoian, George B 4:253
 Garrett, Tom R 1:43
 Gastonguay, Paul R. B 7:446, L 6:370
 Gish, Duane T. L 1:49
 Glazer, Richard B. A 5:292, B 1:54
 Gould, P. R 7:433
 Griggs, David A. L 1:47
 Grosklags, James H. B 6:381, 9:565
 Groves, David L. R 8:500
 Guild, Nancy Ann B 9:573
 Gustafson, Alton H. B 1:52
 Guthrie, John R. L 6:371
 Hagerman, Howard H. B 1:51, 8:519
 Hagquist, Carl W. A 7:414
 Halsell, Grace D 4:243
 Haman, A. C. B 1:62, 3:192, 4:255
 Hamilton, John M. B 9:568
 Hathaway, Ronald P. B 6:381
 Haug, Sister Clea B 5:313
 Hayes, Alice Bourke B 6:373
 Hedtke, Randall R. L 5:310
 Heim, Werner G. R 2:110, B 4:248
 Hickman, Faith B 2:123, 2:128, 6:375
 Highfill, Kenneth M. A 5:279
 Hime, L. R 7:433
 Hoffstrom, Jerry B 7:441
 Holley, Dennis L 6:367
 Holton, Raymond W. B 3:183
 Hopper, Barbara K. E 8:454, B 2:126, 8:513
 Horton, James C. B 6:377
 Hu, Ching-yeh A 4:233
 Huffman, Donald M. B 6:374
 Hulbary, Robert L. B 3:182
 Humphreys, Donald W. B 9:571
 Ikenberry, Gilford J., Jr. B 1:59
 Jacobs, Grace E. A 2:92
 Jalal, Syed M. B 1:54
 James, Helen H. B 1:64, 2:128
 James, Melba A 6:346
 Jamison, Deborah L 4:245
 Jantzen, Paul G. R 5:309, B 6:379
 Jernigan, H. Dean A 8:468
 Johnson, George R. R 9:560
 Johnson, Sister Marion B 4:247, 8:513
 Johnson, R. Roy B 3:192
 Judd, Robert B 1:57
 Kane, Michael M. A 6:344
 Kastrinos, William A 4:217, 5:282, B 1:52, 8:514
 Kaufman, Peter B. A 6:337
 Kay, John C. B 7:442
 Keller, Dolores Elaine B 4:247, 6:382
 Kelley, George W. B 6:374
 Kennedy, Patrick A. L 1:47
 Kerr, Norman S. B 1:51
 Kidd, David E. B 2:119
 Kilmer, Henry J. B 1:51
 King, Barbara A. B 8:516
 Kleinschuster, Stephen J. B 1:60, 3:183, 8:516
 Klinge, Paul B 9:572
 Klopfer, Peter H. D 1:45
 Koch, Rudy G. B 1:62, 8:515
 Koevenig, James L. B 2:123, 6:374, 9:566
 Koritz, Helen G. A 2:95
 Kormondy, Edward J. A 4:217, B 1:53
 Koutnik, P. G. A 6:349

Koyama, Keith R 8:499
 Kritsky, Gene L 5:311
 Kronin, Edward J. A 7:430
 Kurkdjian, Armen A 1:13
 Lacey, Archie L. B 3:185
 Laetsch, Watson M. A 1:37
 Lane, Alexander B 8:518
 Lanham, Willie J. B 1:56, 8:516
 Lawson, Anton E. A 4:209, 6:334
 Lawson, Fred A. B 1:62, 5:318, 8:519
 Le Clercq, Frederic S. A 3:139
 Leisman, Gilbert A. B 7:440
 Lesh-Laurie, Georgia E. B 2:125
 Levin, Peter J. A 3:149
 Levin, Richard A. B 5:315
 Lightner, Jerry P. R 3:176, 5:307
 Lindauer, Ivo A 7:427, B 3:183
 Littlefield, Robert D. B 8:516
 LoCascio, Nicholas J. T. D 3:180, L 6:370
 Lusk, Jane W. B 9:572
 Lynch, D. L. A 8:494
 Lynch, L. R 7:433
 Majumdar, Shyamal K. B 6:378 R 8:504
 Mallon, Elizabeth J. A 2:82
 Manigault, Pierre A 1:13
 Mansfield, Donald H. B 6:373
 Marcus, Bernard A. R 9:558
 Mariner, James L. B 6:380
 Mason, Donald E. B 4:249
 Mathis, Philip M. A 7:418
 Mayer, William V. A 9:543, L 4:245, B 4:254, 5:317
 Mazur, Jane E. R 1:40, B 7:451
 McBurney, Wendell F. B 9:569
 McCain, Jim B 2:119
 McGrathery, Glenn B 4:255, 5:320, 7:442
 Medve, Richard J. A 5:305
 Mertens, Thomas R. A 8:463, B 6:377
 Meyer, Arthur D. B 8:512
 Mihalyi, Louis R 8:502
 Millen, Priscilla A. B 9:564
 Miller, John W. R 1:40
 Milstead, William W. B 1:58
 Moore, John N. L 1:48
 Moran, Joseph M. R 2:113
 Monson, Paul H. B 7:441
 Morgan, Michael D. R 2:113
 Moulton, James M. B 2:127, 6:376, 8:520
 Mueller, Jo Anne R 5:308, L 6:367
 Mullins, Anthony J. R 7:433
 Murphy, James E. L 2:117
 Murphy, Kathleen E. B 5:320
 Murray, Jerry P. A 8:468, B 4:247, 9:567
 Nicholson, Diane A 8:463
 Nicholson, Stuart A. A 5:275
 Nielsen, Peter T. R 3:178

Nisbet, Jerry J. A 2:102
 Nordland, Floyd H. A 4:209
 Novak, Alfred B 7:442
 Nuckolls, Elizabeth P. B 2:118
 Nyberg, Rasamma B 1:52
 O'Kelley, Frank M. B 7:444
 Olsen, Ingrith D. B 6:375, 9:570
 Olsen, Richard W. A 8:474
 Orlans, F. Barbara A 7:401, L 2:116
 Orwig, Gary
 Auditioning Audiovisuals 5:312
 Ost, David H. B 9:564, 9:569
 Owens, Michael L 1:47
 Padberg, L. F. A 6:349
 Peaslee, Margaret H. A 7:412
 Perley, J. E. B 3:186
 Perry, Jim, II B 6:375
 Peterson, Glen E. B 5:315
 Picker, Lester R 8:499
 Pogge, Alfred H. B 5:314, 9:571
 Pohlmann, Mary M. B 8:519, 9:571
 Poscover, Benjamin A 2:105
 Postiglione, Ralph R 3:179, 9:557
 Pratt, Harold B 6:379
 Price, J. S. B 5:316, 7:440
 Quay, W. B. B 6:377, 8:517
 Ransom, John B 5:316, 8:516
 Reagan, Douglas P. A 9:554
 Redfearn, Paul L., Jr. B 2:120
 Reed, Nathaniel P. A 4:212, L 6:369
 Reed, Ray B 4:252, 7:444
 Regenstein, Lewis 1:43
 Reynolds, Larry B 9:568
 Reynolds, W. Ann B 4:247
 Rhines, Karin L. B 6:376
 Rhodes, William E. III A 7:420
 Riggs, Julia A 8:461, B 2:118
 Romey, William D. B 2:120, 8:513
 Rosenman, Martin B. R 9:558
 Rosenthal, Gerson M., Jr. B 2:124
 Rowland, Jane Thomas A 2:77
 Rowsell, H. C. A 1:31
 Rushin, John W. A 9:531
 Rutherford, Robert R 2:110
 Ryan, Frank L. L 6:367
 Sallee, Stephen E. R 3:176
 Saltinski, Ronald A 7:423
 Sanders, Gertrude G. A 4:217
 Santaspirit, J. S. R 8:504
 Schatz, Albert A 4:225
 Scheel, Carl A. B 4:254
 Schein, Martin W. B 9:564
 Schleicher, Jeanne d'Arc B 1:54
 Schlessman, Mark A. B 3:184
 Schmidt, Edward A 6:346
 Schnell, Stuart D. B 8:515
 Schuerman, Carolyn D. A 1:173
 Schwartz, J. H. R 8:504
 Schwenk, Karl A 9:541
 Schwengel, James D. B 9:570

Senzon, Martin E. L 1:47
 Sestili, Mary Ann A 8:492
 Sestini, Virgil A. B 9:567
 Seymour, L. A. A 6:349
 Sherman, Jack B 2:125
 Shields, Lester D. B 3:190, 9:567
 Shmurak, Carole B. B 8:518
 Shrigley, Robert L. B 3:186, 8:520
 Shubeck, Paul P. B 1:52
 Silva, Dolores A 4:225, L 6:368
 Simpson, Ronald D. A 6:340
 Smith, Walter Scott B 3:184
 Snyder, Glenn M. B 3:192
 Soni, Sarvjit L. A 6:337
 Stamper, Jim R 7:435
 Stamper, W. Robert B 1:53, 5:318, 9:567
 Starr, Robert J. A 3:173
 Stebbins, Robert C. A 4:203, 5:294
 Stevens, Christine R 1:43
 Stoaks, Ralph D. A 6:360
 Stockdale, Dennis L. R 6:364
 Stoltze, Herbert J. B 9:571
 Streubel, Donald P. A 7:427
 Stronck, David R. A 2:107
 Sweat, Sister Jean A 3:156
 Sweet, Haven C. A 3:146
 Sweetser, Evan A. R 4:239
 Thomas, Kenneth J. B 1:63
 Thomas, Lewis D 2:115
 Troll, Ralph B 8:517
 Tucker, Allan A 4:229
 Tweeten, Paul W. B 3:184
 Umbreit, W. W. B 1:56, 7:450
 Vail, Roy A 8:496, R 2:110
 Van Gorp, Dan R 7:435
 Vargo, Alexandra B 6:381
 Von Blum, Ruth A 1:37
 Vostal, Jaroslav J. R 5:307
 Vuke, George
 Auditioning Audiovisuals 5:312
 Wallace, Dale C. A 2:99
 Walton, Sister Mara B 3:184, 6:378, 9:569
 Wanke, Gary K. R 4:240, 5:308
 Watson, Margaret L. B 7:443
 Weatherholt, Raymond, Jr. B 2:120
 Weber, William A. B 2:118, 6:373
 Welliver, Paul W. B 3:188
 West, George G. B 9:572
 Whitaker, Prevo L. L 1:47
 Williams, Olwen B 3:191, 9:571
 Wise, Donald B 1:57
 Woodward, Val W. A 1:21, 2:87, B 1:55, L 6:372
 Wright, A. Gilbert B 3:182, 7:440
 Yager, Robert E. L 1:47
 Yeany, Russell, Jr. B 3:188
 Yongue, William H., Jr. B 3:187
 Yoseloff, Julien L 4:245



Seasons Greetings from the editors and staff
 of the
 National Association of Biology Teachers



